

**THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

D.T.E. 05-27

**DIRECT TESTIMONY OF
STEPHEN H. BRYANT**

***– INTRODUCTION & OVERVIEW,
CORPORATE STRUCTURE AND AFFILIATE ISSUES,
SERVICE QUALITY,
RESTRUCTURING, COST REDUCTIONS AND EFFICIENCIES,
STEEL INFRASTRUCTURE REPLACEMENT PROGRAM,
METSCAN,
AND ENERGY PRODUCTS & SERVICES –***

**IN SUPPORT OF
BAY STATE GAS COMPANY'S
REQUEST FOR INCREASE IN BASE REVENUE AND
OTHER RATE MODIFICATIONS**

EXH. BSG/SHB-1

APRIL 27, 2005

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DIRECT TESTIMONY OF STEPHEN H. BRYANT

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Stephen H. Bryant. My business address is Bay State Gas Company ("Bay State" or the "Company"), 300 Friberg Parkway, Westborough, MA 01581.

Q. By whom are you employed and in what capacity?

A. I am the President of Bay State and its affiliate, Northern Utilities, Inc. ("Northern").

Q. Please summarize your responsibilities at Bay State.

A. I am responsible, along with Danny G. Cote, the General Manager of Bay State, for ensuring that Bay State provides its customers with reliable, high-quality service at the lowest reasonable cost and also for ensuring the overall profitability of Bay State. In addition, I oversee government policy initiatives, including Bay State's interaction with the Massachusetts Department of Telecommunications and Energy ("Department"). I also coordinate the regulatory and government policy issues of Bay State with Bay State's parent company, NiSource Inc. ("NiSource").

1

2 Q. For how long have you been President of Bay State?

3 A. I became President in October 2003.

4

5 Q. Please briefly describe your professional experience.

6 A. I joined Bay State in January of 2001 as Vice President of External Affairs, a
7 position I held until I was appointed President of Bay State and Northern. Prior to
8 joining Bay State, I was Vice President of Marketing Services for Connecticut
9 Natural Gas Corporation ("CNG") from 1997 through 2000. My responsibilities
10 in that position included oversight of all regulatory matters before the Connecticut
11 Department of Public Utility Control. Prior to joining CNG, I held several
12 positions with Commonwealth Gas Company (now NSTAR Gas), including Vice
13 President of Marketing and Customer Relations. I was employed by
14 Commonwealth Gas or its affiliates from 1971 through 1997.

15

16 Q. Please briefly describe your educational background.

17 A. I hold a Bachelor of Arts in Economics from the University of Massachusetts at
18 Boston and a Masters in Business Administration from Boston University.

19

20 Q. Have you testified before the Department or other regulatory commissions?

21 A. Yes. I have testified before the Department regarding rate and consumer issues,
22 and also before the Maine Public Utilities Commission, the New Hampshire

1 Public Utilities Commission, and the Connecticut Department of Public Utility
2 Control.
3

4 **II. PURPOSE AND SUMMARY OF TESTIMONY**
5

6 Q. What is the scope of your testimony in this proceeding?

7 A. My testimony supports both rate issues and regulatory policy issues central to Bay
8 State's base rate request in this proceeding. I also introduce to the Department the
9 other witnesses supporting Bay State's base rate proposal.

10 I describe Bay State's service territory and its customer base. I also describe Bay
11 State's performance in terms of service quality and the recent initiatives it has
12 undertaken to improve customer service and satisfaction. In the face of
13 increasingly volatile gas commodity prices, I describe how Bay State attempts to
14 help customers cope with recent increases in those prices. I describe the NiSource
15 corporate structure under which Bay State operates, Bay State's relationship with
16 Northern, and later, Bay State's integrated service business, Energy Products and
17 Services ("EP&S"). In support of Bay State's rate request related to recovery of
18 Metscan costs, I provide detailed background on the replacement of the Metscan
19 meter devices with Itron devices. I describe the Steel Infrastructure Replacement
20 ("SIR") program proposed by Bay State and the need for a corresponding annual
21 adjustment to rates. Finally, I discuss the tremendous changes faced by Bay State

1 since its last base rate proceeding in 1992, in terms of restructuring, cost
2 reductions and efficiencies created by its mergers.

3
4 I suggest that I be viewed by the Department as Bay State's "catch-all" witness,
5 for subjects for which other Bay State witnesses may not be directly responsible.
6 As President of Bay State, I am responsible for ensuring that the Department
7 receives the information it needs in a clear and timely manner to make a
8 reasonable and fair determination on Bay State's rate request.
9

10 **III. SUMMARY OF RATE REQUEST**
11

12 Q. Please describe today's filing.

13 A. Today's filing provides the information necessary for the Department's approval
14 of several initiatives that Bay State believes are required to enable it to continue to
15 provide safe and reliable service at the lowest reasonable cost to its customers.
16

17 Q. What is the level of rate relief sought by Bay State?

18 A. Bay State seeks an increase in base revenue of \$22,238,326, which represents a
19 4.7% increase over 2004 annual gas revenues from rates. This overall increase in
20 base revenue reflects an adjustment to the revenues derived from the base rates
21 for the two functional components of Bay State's rates, that is, gas distribution
22 and gas production. The allocation of the revenue requirements between the

1 distribution and production functions is supported by the Accounting Class Cost
2 of Service Study presented by Bay State's witness, James L. Harrison, in this
3 proceeding. See, Exh. BSG/JLH-2.

4
5 Bay State proposes a reconciling mechanism for pension and post-retirement
6 benefits other than pensions ("PBOP") that will operate through the Local
7 Distribution Adjustment Clause ("LDAC") similar to the mechanism approved
8 recently by the Department for other gas and electric companies.

9
10 Bay State proposes a Steel Infrastructure Replacement ("SIR") Base Rate
11 Adjustment to recover the costs of its recently commenced program to accelerate
12 the replacement of its bare steel main and service infrastructure. This adjustment
13 will enable Bay State to avoid the filing of rate cases to recover the costs of this
14 program.

15 Finally, Bay State is proposing a 5-year Performance-Based Regulation Plan
16 ("PBR").

17
18 Q. Please identify Bay State's other witnesses and summarize the subjects on which
19 they present testimony.

20 A. John E. Skirtich: In Volume II, the testimony, schedules, exhibits and
21 workpapers of John E. Skirtich ("Skirtich Testimony"), a Bay State consultant,

1 support the requested total revenue requirement. See, Exhibit BSG/JES-1 and
2 Workpapers Volume 1 - Skirtich. Mr. Skirtich also presents the lead lag and
3 working capital study for Bay State (Exhibit BSG/JES-2). Included in the
4 Skirtich Testimony as well are the adjustment to remove pension and PBOP from
5 the revenue requirement, the adjustments to accurately reflect the proposed
6 ratemaking treatment for the Metscan telemetering devices, and revenue
7 requirement schedules associated with the SIR Base Rate Adjustment.

8 **Steven A. Barkauskas**: In Volume II, the testimony, schedules and exhibits of
9 Steven A. Barkauskas ("Barkauskas Testimony"), a Human Resources ("HR")
10 Vice President for NiSource Corporate Services Company, provides support for
11 Bay State's pro forma adjustments for wages, payroll, salaries, benefits, pensions
12 and post retirement benefits other than pensions ("PBOP"), as well as the
13 justification for recovering such costs in a pension and PBOP mechanism
14 ("PPM"). See, Exhibit BSG/SAB-1.

15 **Danny G. Cote**: In Volume III, the testimony and exhibits of Danny G. Cote
16 ("Cote Testimony"), General Manager of Bay State, supports Bay State's revenue
17 producing and non-discretionary plant additions; its Steel Infrastructure
18 Replacement ("SIR") program; transfers, sales and leases of property; and Bay
19 State's capital budgeting and management processes. See, Exhibit BSG/DGC -1.

20 **Joseph A. Ferro**: In Volume III, Bay State's operating revenues, volumes,
21 adjustment mechanisms and tariffs, rate design and rate impact analysis are
22 described in, and supported by, the testimony, schedules and workpapers of

1 Joseph A. Ferro, Manager, Regulatory Policy ("Ferro Testimony"). See, Exhibit
2 BSG/JAF -1; Exhibit BSG/JAF-2; and, Exhibit BSG/JAF-3. In addition, Mr.
3 Ferro explains the operation of the SIR Base Rate Adjustment mechanism, which
4 is how Bay State proposes to recover the costs associated with its SIR program in
5 the context of an annual base rate adjustment mechanism ("ABRAM") that will
6 also include the inflation adjustment under Bay State's proposed PBR. Exh.
7 BSG/JAF-2. Mr. Ferro also provides support for the pension and postretirement
8 benefits other than pension ("PBOP") mechanism ("PPM"). Finally, Mr. Ferro
9 explains the changes proposed to Bay State's tariff. Exh. BSG/JAF-3.

10 **James L. Harrison:** In Volume V, the testimony, exhibits, schedules and work
11 papers of James L. Harrison ("Harrison Testimony"), a Principal of Management
12 Applications Consulting ("MAC"), support a gas cost allocation and the
13 Simplified Market Based Allocation ("SMBA") method for Bay State's CGA.
14 Exh. BSG/JLH-1. Mr. Harrison also conducted Bay State's fully Accounting
15 Cost of Service Study ("ACSS"), that is used to determine Bay State's cost of
16 service by function (e.g. distribution and production) and to establish the revenue
17 responsibility for each rate class. See, Exhibit BSG/JLH - 2. Mr. Harrison also
18 conducted a Marginal Cost of Service Study ("MCSS") for Bay State, used
19 primarily in designing base rates for each class to achieve the Department's long-
20 standing rate design goals and objectives. Exhibit BSG/JLH-3.

1 **Paul R. Moul**: The testimony and exhibits of Paul R. Moul (“Moul Testimony”),
2 President of P. Moul & Associates, support the proposed return on equity and
3 overall rate of return. See, Exh. BSG/PRM -1.

4 **Earl M. Robinson**: Earl M. Robinson, President and Chief Executive Officer of
5 the Weber Fick & Wilson Division of AUS Consultants – Utility Services,
6 presents testimony and exhibits supporting Bay State’s recent depreciation study
7 (“Robinson Testimony”), which is used to establish appropriate depreciation rates
8 and expense for Bay State’s revenue requirements. See, Exh. BSG/EMR -1.

9 **Lawrence R. Kaufmann**: Dr. Lawrence R. Kaufmann, from Pacific Economics
10 Group, presents, through testimony and exhibits, Bay State’s performance based
11 rate (“PBR”) plan (“Kaufmann Testimony”). See, Exh. BSG/LRK -1.

12
13 For a complete list of the topics included in this filing, please review the table of
14 contents at the beginning of each witness’s direct testimony.

15
16 **IV. BACKGROUND**

17
18 **A. Rate Case History and Need for Rate Relief**

19 1. Rate Case History

20 Q. When did Bay State last seek a base rate increase?

21 A. Bay State last sought a base rate increase 13 years ago in 1992 (D.P.U. 92-111).

1 Q. In D.P.U. 92-111, what was the amount of the increase approved by the
2 Department?

3 A. Bay State filed for a proposed increase in annual retail revenues of \$20,646,572,
4 or a 7% increase in annual retail revenues based on a test year ended December
5 31, 1991.¹ By Order in D.P.U. 92-111, dated October 31, 1992, the Department
6 approved an increase of \$11,523,418.

7

8 Q. Has Bay State had any other rate proceedings since 1992?

9 A. Yes, in 1995, Bay State filed tariffs to redesign its rates to reflect unbundled
10 services – the first utility in the Commonwealth to promote retail competition in
11 the gas commodity for its customers. The Department approved a settlement that
12 allowed Bay State to offer the Pioneer Valley Pilot Program, one of the first retail
13 competitive market pilots in the Commonwealth. D.P.U. 95-104 (1995).

14

15 In 1997, the Department approved a settlement among Bay State, the Attorney
16 General and other parties that provided for two base rate increases, each for
17 approximately \$1.8 million, representing a .7% increase in total revenues per
18 year.

19

¹ During the course of the Department's investigation, Bay State amended the filing, bringing the increase to \$21,169,741, or 7.2%.

1 In 1998, as part of the order approving the merger between Bay State and
2 Northern Indiana Public Service Company, the Department approved a 5-year rate
3 freeze that expired in November 2004. D.T.E. 98-31.
4

5 2. Need for Rate Relief

6 Q. Why is it necessary for Bay State to file a base rate case at this time?

7 A. It has been 13 years since Bay State filed its last base rate proceeding. The
8 Company has done everything possible to manage its costs within the rate levels
9 allowed. However, costs have continued to increase throughout those 13 years
10 and Bay State has continued to reinvest in its distribution infrastructure.
11

12 Q. Do Bay State's revenues provide it an opportunity to earn its allowed return?

13 A. Bay State's current distribution rates do not provide the opportunity to recover its
14 costs to serve customers, including a reasonable return on the capital invested to
15 provide distribution service to the public. Bay State's current revenue deficiency
16 reflects Bay State's continuing commitment to make needed safety and reliability-
17 related capital investments in its gas distribution system during a period of time
18 when normalized gas sales per existing customer have declined and opportunities
19 to add additional sales from new and existing customers have slowed.
20

21 Since its last rate case, Bay State has been required to restructure its gas
22 operations to accommodate the unbundling of its gas services and offer customer

1 choice and supplier access to its distribution system and customers. This
2 restructuring process has required new investments and expenses related to
3 customer-information systems, supplier interfaces and increased regulatory
4 compliance activities. The costs required to support these changes in Bay State's
5 operations, coupled with inflationary pressures on Bay State's other operating
6 costs, have all contributed to Bay State's need to seek rate relief.

7
8 Q. Are there other reasons a rate case is needed at this time?

9 A. Yes. Bay State's base rates must be examined in order to establish appropriate
10 cast-off rates for a PBR, which the Department has encouraged all utility
11 companies to operate under. Cast-off rates are a necessary component of a PBR
12 to ensure that the rates established at the inception of the PBR are reflective of the
13 costs of providing service at the time that the PBR commences. Bay State
14 commissioned Pacific Economics Group to assist it in designing its PBR plan. In
15 doing so, Bay State has followed the Department's precedent on PBR and,
16 specifically the key elements of the PBR approved for Boston Gas Company d/b/a
17 KeySpan Energy Delivery New England in D.T.E. 03-40 (2003) for the
18 productivity factor, inflation adjustment, consumer dividend, earnings sharing
19 mechanism, and exogenous cost recovery. Bay State's proposal, however, seeks a
20 five (5) year term.

1 In addition, the Department has recognized the volatility of pension and post-
2 retirement benefits other than pensions ("PBOP") obligations for electric and gas
3 companies in the Commonwealth and the negative effect that volatility in relevant
4 markets can have on those companies. Bay State is therefore seeking to
5 implement a pension and PBOP reconciling mechanism consistent with the
6 Department's orders on this subject.

7
8 Q. Are there additional reasons why it is necessary for Bay State to file a base rate
9 case at this time?

10 A. Yes. As discussed throughout this filing, Bay State has determined, as the result
11 of engineering, in-field and statistical analyses, that it must replace aging and
12 deteriorating steel mains, services, risers and related facilities ("Eligible
13 Facilities") in its service territory at an accelerated rate. The SIR program is vital
14 to the safety and reliability of Bay State's distribution infrastructure. It is also
15 important that a mechanism be put in place to recover Bay State's accelerated
16 investment in these facilities on a timely, reviewable and administratively
17 efficient basis. While I summarize the SIR program and the proposed base rate
18 adjustment mechanism, the Cote Testimony (Exh. BSG/DGC-1) further explains
19 the need for the SIR program; the Skirtich Testimony (Exh. BSG/JES-1) provides
20 the expected revenue requirement for the SIR; and, the Ferro Testimony (Exh.
21 BSG/JAF-1) supports the design of the cost recovery mechanism, or, more
22 specifically, the base rate adjustment mechanism associated with the SIR

1 program. Additional witnesses confirm the SIR's compatibility with the
2 remaining portions of the request for rate relief.
3

4 B. Summary of Test Year Method Used To Determine Revenue
5 Requirements
6

7 Q. How did Bay State determine its revenue requirement?

8 A. As described in the Skirtich Testimony (Exh. BSG/JES-1), Bay State reviewed its
9 costs to serve its customers, using its test year expenses pro forma and adjusted
10 for known and measurable changes. Bay State then compared this cost to serve to
11 its test year revenues, as adjusted, which produced a revenue deficiency, and
12 correspondingly the revenue requirements that Bay State will require to make up
13 this deficiency. The revenue requirement proposed by Bay State will allow it to
14 recover the reasonable cost of providing service to customers including the
15 opportunity to earn a fair rate of return on the investments it has devoted to
16 serving the public.
17

18 Q. How did Bay State determine its rate base, operating revenues and operating
19 expenses?

20 A. As described in the Skirtich Testimony (Exh. BSG/JES-1) and the Ferro
21 Testimony (Exh. BSG/JAF-1), Bay State used historic test year data to determine
22 its rate base, operating revenues, operating expenses, and billing determinants.

23 Pro forma adjustments were made to the test year data for known and measurable

1 changes in order to determine the appropriate revenues and expenses to use for
2 setting rates that will be in effect for the rate year. Please see the Skirtich
3 Testimony (Exh. BSG/JES-1) for rate base levels and operating expenses, and the
4 Ferro Testimony (Exh. BSG/JAF-1) for operating revenues and billing
5 determinants.

6
7 Q. What is Bay State's test year?

8 A. The test year is the twelve-month period ending December 31, 2004.

9
10 Q. What is the rate year?

11 A. The rate year is the first twelve months during which the rates established in this
12 proceeding will be in effect, the period December 1, 2005 through November 30,
13 2006.

14
15 Q. By what standards were pro forma adjustments made to Bay State's test year
16 data?

17 A. Consistent with Department precedent, all adjustments to the test year are based
18 upon either known and measurable changes in revenues and expenses, or upon
19 changes that will become known and measurable during the course of this
20 proceeding or, where appropriate, known and measurable expenses that will be
21 experienced in the rate year.

1 **V. BAY STATE AND ITS AFFILIATED COMPANIES**

2
3 A. Bay State Gas Company

4 Q. Please describe Bay State.

5 A. Bay State was incorporated as a gas company in Massachusetts in 1974 and was
6 created by the merger of many local gas works, such as the Springfield Gas Light
7 Company, the Brockton Taunton Gas Company, and the Lawrence Gas Company.
8 Bay State provides retail natural gas distribution services to approximately
9 285,000 customers in three divisions identified by the cities of Springfield,
10 Brockton and Lawrence. Bay State provides gas distribution service to the
11 communities listed in Exhibit BSG/SHB-2.

12
13 Q. Are the service territories of Bay State's three distribution service areas
14 connected?

15 A. No, they are not geographically connected to one another. However, Bay State's
16 three distribution service areas operate, to the greatest extent possible, on a
17 centralized and integrated basis as if they were a single entity.

18
19 Q. Why does Bay State operate three separate distribution service areas on a
20 centralized basis?

21 A. Bay State has structured its utility operations to achieve system-wide efficiencies
22 through economies of scale, elimination of duplicate functions and best business

1 practices. Bay State leverages its size, along with the purchasing power of
2 NiSource, to obtain goods and services at least cost.

3
4 Q. Does Bay State perform its gas supply planning and resource modeling within the
5 three divisions on an integrated basis?

6 A. Yes, to the extent it makes sense to do so. In reviewing and approving Bay
7 State's most recent integrated resource supply plan in D.T.E. 02-75, the
8 Department determined that the forecast models developed by Bay State use a
9 well-founded forecasting technique based on demographic and economic
10 variables specific to each of the metropolitan areas served by the Company. The
11 Department also determined that the predictive ability of Bay State's forecast
12 model, based on time series and econometric models, was suitable for the size and
13 the nature of Bay State and its divisions. The Department stated that it had
14 confidence in the manner Bay State derives its forecast load to supply its
15 divisions.

16
17 B. NiSource Inc.

18 Q. Please describe Bay State's parent company, NiSource Inc. ("NiSource").

19 A. NiSource was created by the merger in 1998 of Northern Indiana Public Service
20 Company ("NIPSCO") and Bay State. Subsequently, NiSource merged with the
21 Columbia Energy Group ("Columbia") in 2000. NiSource is a registered public
22 utility holding company subject to the jurisdiction of the Securities and Exchange

1 Commission ("SEC"). NiSource is headquartered in Merrillville, Indiana and its
2 focus is on its traditional public utility operations and its ability to provide its
3 customers with reliable, safe, environmentally responsible, least-cost service.
4

5 Q. Please describe the NiSource companies.

6 A. The NiSource core operating companies engage in natural gas transmission,
7 storage and distribution, as well as electric generation, transmission and
8 distribution. Within NiSource there are ten (10) local natural gas distribution
9 companies or divisions, serving at retail over 3 million residential, commercial
10 and industrial customers: Bay State, Northern, Columbia Gas of Ohio, Kokomo
11 Gas and Fuel Company, Northern Indiana Fuel and Light Company, Northern
12 Indiana Public Service Company, Columbia Gas of Kentucky, Columbia Gas of
13 Pennsylvania, Columbia Gas of Maryland, and Columbia Gas of Virginia.
14

15 NiSource has four (4) natural gas transmission companies that are regulated by
16 the Federal Energy Regulatory Commission ("FERC"): Columbia Gas
17 Transmission, Columbia Gulf Transmission, Crossroads Pipeline, and Granite
18 State Gas Transmission ("Granite State").
19

20 In order to serve its operating subsidiaries, the NiSource companies include
21 affiliated companies that provide, on a centralized basis, important services for
22 the operating companies. Chief among those companies are NiSource Finance

1 Corp., which provides internal financing to the NiSource operating companies at
2 cost-effective rates and NiSource Corporate Services Company, which provides
3 managerial, professional, and other support services for the NiSource operating
4 companies.

5
6 C. NiSource Corporate Services Company

7 Q. What is NiSource Corporate Services Company ("NCSC")?

8 A. As described above, NCSC is a subsidiary of NiSource that provides professional
9 and managerial services to the NiSource operating companies, including Bay
10 State. NCSC is regulated by the SEC under the Public Utility Holding Company
11 Act of 1935 ("PUHCA").

12
13 Q. Does an agreement approved by the SEC govern the relationship between Bay
14 State and NCSC?

15 A. Yes. See, Exh. BSG/SHB-3 (NCSC/Bay State Gas Company Services
16 Agreement, 2005).

17
18 Q. What specific functions does NSCS perform for the operating companies?

19 A. NCSC provides a wide variety of shared services to each of the NiSource
20 companies, including Bay State, on an at-cost basis. Those services include:
21 accounting and budget; human resources, information technology; engineering;
22 legal; tax; corporate communications; insurance procurement; risk management;

1 corporate credit; investor relations; real estate; internal audit; energy procurement;
2 and, supply chain non-energy procurement. These services are provided to all
3 operating companies, as requested. Prior to becoming part of NiSource and the
4 formation of NCSC, Bay State performed most of these functions on its own
5 behalf, and on behalf of its subsidiary Northern, on a stand-alone basis.
6

7 Q. How does NCSC benefit Bay State's customers?

8 A. Within NiSource, as in much of the utility industry, the corporate service
9 company model has been proven to be an efficient means of providing specialized
10 expertise to a wide range of subsidiaries on a cost-effective basis, thereby
11 benefiting customers. The provision of services on a centralized basis enables the
12 affiliates to realize economic and other benefits, including the efficient use of
13 personnel and equipment, and the availability of expertise, systems and equipment
14 that would not likely be economically available on an individual company basis.
15 NCSC offers its individual distribution companies, including Bay State, access to
16 a depth of experienced personnel likely not otherwise available to an entity of its
17 size. Finally, the cost to secure these services from NCSC is less than the cost
18 that Bay State would incur if it secured these various services separately from the
19 competitive marketplace.
20

21 Q. How does NCSC charge Bay State for services rendered to it?

22 A. NCSC bills Bay State for the services it performs according to the SEC rules that

1 apply to utility holding companies under the NCSC/Bay State Affiliate Services
2 Agreement approved by the SEC. Some NCSC services are allocated to Bay
3 State, whereas others are directly billed to Bay State. As required by the SEC,
4 NCSC follows the SEC Uniform System of Accounts for Mutual Service
5 Companies and Subsidiary Service Companies.
6

7 Q. Are charges for services provided to Bay State by NCSC billed at cost?

8 A. Yes. In compliance with SEC Rules 90 and 91 under PUHCA, all services are
9 provided at cost.
10

11 Q. What functions provided by NCSC are typically sought by Bay State?

12 A. Bay State has sought services from NCSC in the following departments:
13 information systems, auditing, telecommunications, financial accounting,
14 consolidation accounting, treasury, environmental health and safety, tax, strategic
15 and financial planning, legal, human resources, risk management, gas supply and
16 strategic procurement. Each of the services sought is highly specialized and
17 would be difficult for Bay State to provide or procure on its own on a cost-
18 effective basis.
19

20 Q. Is Bay State able to choose from whom it receives these types of services if it
21 decides those services should not be provided by NCSC?

22 A. Yes, in almost all cases. While it is expected and intended that NCSC will have a

1 cost advantage in terms of expertise in the natural gas distribution industry,
2 institutional knowledge of Bay State, and the range of services it offers, at any
3 time Bay State may pursue other vendors of those services.
4

5 Q. Does Bay State's revenue requirement include a pro forma adjustment to the test
6 year for NCSC expense?

7 A. Yes, it does. See, Skirtich Testimony, Exh. BSG/JES-1 at Sch. JES-6, p. 1 of 20.
8

9 D. Restructuring, Cost Reductions And Efficiencies

10
11 Q. What has been the Department's view on cost containment relative to mergers?

12 A. The Department has stated that prudent and effective management requires each
13 utility's management to be vigilant and seize all reasonable opportunities for cost
14 reductions, including those involving some form of consolidation, whenever and
15 wherever available. D.P.U. 93-167 (1994).
16

17 Q. After the NIPSCO – Bay State combination, cost reductions achieved?

18 A. Yes. As expected, cost savings were created by the elimination of duplicate
19 corporate and administrative programs, greater efficiencies in operations and
20 business processes, increased purchasing efficiencies, and the combinations of the
21 two workforces.
22

1 Q. Specifically, what types of efficiencies were created?

2 A. Bay State has benefited from organizational efficiency as a result of the merger
3 with NIPSCO and the follow-on merger with Columbia. The acquisition of
4 Columbia created a large and efficient natural gas utility, with an unparalleled
5 depth of knowledge and presence in the natural gas industry. Bay State benefits
6 daily from this combination. As a stand-alone company, Bay State could only
7 capitalize on opportunities and circumstances available to it as a New England gas
8 utility. By virtue of the restructuring, Bay State has been able to maintain its local
9 character but at the same time, redefine itself as part of a larger, stronger
10 organization, better positioned to serve its customers. In addition, Bay State has
11 been able to benefit from adopting the best practices of NiSource, which, among
12 other things, has resulted in more stable revenues. Without the restructuring, Bay
13 State would not have been able to maintain rate stability for so many years as it
14 has, because it would have continued to operate as a stand-alone company without
15 the efficiencies it has received from NiSource.

16

17 Q. Do you expect these benefits to continue into the future?

18 A. Yes. Most of the restructuring savings activities undertaken will continue to
19 generate benefits. For example, the labor reductions and severances (on the
20 administrative side) occurring at Bay State following the Columbia merger are

1 permanent, as they related to now-redundant functions.² In addition, Bay State
2 now enjoys significant purchasing leverage because of its participation in a much
3 larger organization. Finally, Bay State's participation in the system-wide cash
4 management and pooled borrowing programs has provided significant savings in
5 each of Bay State's recent financings.
6

7 Q. Please describe further synergies that have produced the benefits for customers?

8 A. The combined Bay State, Columbia and NIPSCO companies integrated their
9 existing corporate, administrative and technical support areas. Redundant
10 positions in operations centers and operations support, in legal, external relations,
11 finance, accounting, rates, corporate planning, human resources, information
12 systems, administrative support, customer service, marketing, executive
13 management, distribution system engineering, system planning and technical
14 support were eliminated. Moreover, redundancy within two departments with the
15 same purpose was identified and eliminated through an alignment of functions
16 across NiSource. For example, each individual function within the finance area,
17 including budgets and forecasting, financial reporting, general accounting, tax
18 accounting and accounts payable, among others, contained positions performing
19 duplicate tasks. These overlapping positions were eliminated.
20

21 E. Northern Utilities, Inc.

² Note that on the operations side, Bay State has rehired 33 employees to support field work.

1 Q. Please describe the relationship between Bay State and Northern.

2 A. Northern was acquired by Bay State in the late 1970's and remains a corporate
3 subsidiary of Bay State, providing natural gas distribution service in New
4 Hampshire and Maine. While capacity and supply is acquired for its customers
5 on a total system basis, Northern is rate regulated by the New Hampshire Public
6 Utilities Commission for the natural gas distribution services provided by its New
7 Hampshire Division and by the Maine Public Utilities Commission for the natural
8 gas distribution services provided by its Maine Division.

9

10 Q. What is the Bay State/Northern Operational Services Agreement?

11 A. The 2002 BSG-Northern Operational Services Agreement sets forth the terms
12 and conditions by which (1) Bay State provides and bills for management-related
13 services located in Massachusetts that are rendered to or on behalf of Northern;
14 and (2) Northern provides and bills for management-related services located in
15 New Hampshire that are rendered to or on behalf of Bay State's Lawrence
16 Division ("Bay State-Lawrence"); (3) Bay State-Lawrence provides and bills for
17 supervisory-related services located in Massachusetts that are rendered to or on
18 behalf of Northern; and (4) each company provides and bills for the services of
19 operating employees that one company may provide to the other from time to
20 time.

21

22 Q. Is a copy of the 2002 Bay State/Northern agreement included in this filing?

1 A. Yes, it is attached as Exh. BSG/SHB-4.

2

3 Q. What services does Bay State provide Northern under the Operational Services
4 Agreement and what services does Northern provide to Bay State?

5 A. The Bay State/Northern Operational Services Agreement currently provides for
6 the sharing of certain professional, supervisory, and technical services related
7 primarily to operations and maintenance of both Bay State's and Northern's
8 distribution systems. These services include, but are not limited to, operations
9 and maintenance ("O&M") services, such as may be required for the construction,
10 operation, maintenance and repair of facilities, billing, maintenance of customer
11 records, data entry, call center, revenue recovery, gas dispatch, field dispatch,
12 scheduling, storage of equipment and materials, engineering, energy products and
13 services, demand-side management services, inventory management,
14 transportation operation services, operational development, and safety. Other
15 services include budget and financial, marketing and advertising, metering,
16 employee services, office space, officers, and certain miscellaneous services that
17 are consistent with services normally provided to a gas distribution utility. These
18 services are generally provided by Bay State to Northern, although Northern does
19 provide limited managerial support to Bay State's Lawrence Division.

20

21 Q. How are the costs of these services allocated between Bay State and Northern?

1 A. Bay State allocates to Northern nearly all of the operational services charges it
2 incurs on behalf of Northern's Maine and New Hampshire Divisions using a
3 three-factor formula based on: (1) Gross Fixed Assets; (2) Total O&M Expenses
4 (net of total management costs); and (3) Number of Retail Customers.

5
6 A two-factor formula is used to allocate operational services costs, performed for
7 Bay State by Northern's New Hampshire or the Maine Division. The two-factor
8 formula is based on: (1) Gross Fixed Assets and (2) Number of Customers.

9
10 **VI. STRATEGIC PLAN FOR BAY STATE**

11
12 Q. What are the strategic plans for Bay State?

13 A. The short-term strategic plan for Bay State is to focus on three aspects of its
14 traditional responsibility for the distribution of natural gas: service, safety and
15 reliability. By service, I mean providing the best and most innovative form of
16 service to our customers by being prompt, understandable and courteous at all
17 times in responding to customer requests and concerns, responsive to customer
18 billing and service inquiries, and sensitive to the needs of the communities we
19 serve. By safety, I mean maintaining our distribution system using best practices
20 in the industry to ensure the confidence and the safety of the public, our
21 customers, our regulators and our employees and, in particular, implementing the
22 important replacement of our rapidly deteriorating steel mains and services. By

1 reliability, I mean planning and procuring our gas supply portfolio and
2 infrastructure needs to deliver a highly reliable, least-cost service and product that
3 is available on a consistent basis in response to the wide range of demands made
4 by the variety of customers we have. In sum, by using a professional staff,
5 leveraging the purchasing power of Bay State's affiliation with NiSource, and
6 providing an unparalleled commitment to customer service, Bay State will
7 continue to be a valued community participant and proud partner in the economic
8 growth and prosperity of its distribution service territories.

9
10 Q. What options are under consideration to continue to reduce costs for the Company
11 and its customers?

12 A. Bay State regularly considers ways to improve operations and efficiency
13 including a variety of strategic and cost containment initiatives to benefit Bay
14 State and its customers, directly or indirectly. For example, many employees are
15 working under performance management plans that encourage cost savings and
16 recognize cost savings with economic rewards. The customer relations team is
17 collaborating on innovative methods of improving billing, metering and
18 collections. At NiSource, the activities of certain internal business groups, such
19 as those responsible for information technology, are under consideration to be bid
20 competitively to third-party vendors of the same or similar services.

**VII. DELIVERING ON ITS COMMITMENT TO SERVE CUSTOMERS
WELL**

Q. Does the Department apply service quality standards to Bay State?

A. The Department has oversight of Bay State's service quality ("SQ") and has emphasized on many occasions the importance of compliance with SQ benchmarks.

Q. Has Bay State performed well under the Department's service quality standards?

A. Yes. Beginning in 1997, Bay State implemented a series of service quality measures and benchmarks and a penalty structure for failure to achieve the established benchmarks. D.T.E. 97-97. These standards were in effect until the Department's orders in D.T.E. 99-84 instituted service quality standards and imposed reporting requirements on all distribution companies. At the time of that order, Bay State added a number of additional SQ measures.

The following lists the SQ measures, the target level approved by the Department and Bay State's test year performance:

1. Same Day Appointments: This measure requires that Bay State meet service appointments on the same day as scheduled 97.7 percent of the time. Bay exceeded the target at 99.54 percent of all service appointments met in the same day scheduled.

1 2. Department Cases per 1000 Customers: This measure requires that Bay
2 State have no more than 1.6 customer complaint cases per 1,000 customers, using
3 the Department's Consumer Division statistics (with a ten percent no-penalty
4 bandwidth). Bay State's experience, at .97 cases per 1,000 customers, was below
5 the target.
6

7 3. DAW Injury Rate/Lost Time Incidents: This measure requires that Bay
8 State have no more than 3.86 injuries (resulting in lost time) per 200,000
9 employee hours. Bay State's 2004 performance was substantially below the
10 target, at 2.69 injuries per 100 employees.
11

12 4. One Hour Response to Odor Calls: This measure requires that Bay State
13 respond to 95 percent of odor calls in one hour or less. Bay State's test year
14 performance was 98.2 percent, significantly exceeding the baseline requirement
15 for safety.
16

17 5. Billing Adjustments per 1,000 Customers: This measure requires Bay
18 State to ensure accuracy of billings and to adjust no more than \$116.42 in
19 customer bills per 1,000 customers each year. Bay State's average for 2004 was
20 \$42.37 per 1,000 customers, significantly below the target.
21

22 6. Telephone Calls Answered Within 30 Seconds: This measure requires
23 Bay State to answer 69.9 percent of service and billing calls within 30 seconds.
24 Bay State's 2004 average was 85.5 percent.
25

26 7. Emergency Telephone Calls Answered Within 30 Seconds: This measure
27 requires Bay State to answer 96.8 percent of emergency calls within 30 seconds.
28 The Company's 2004 performance, at 97.6 percent, exceeded the benchmark.
29

30 8. Actual On-Cycle Meter Readings: This measure requires Bay State to
31 read 89.6 percent of meters on cycle. Bay State read 96.8 percent of its meters on
32 cycle, exceeding the target.
33

34 9. Missed Appointments: This measure requires Bay State to track missed
35 appointments and credit customers affected up to \$25 for each missed

1 appointment. The customer credits given to account for missed appointments
2 were \$3,325 in 2004.
3

4 As can be seen from these results, Bay State exceeded all of its SQ obligations
5 during 2004.
6

7 Q. Did Bay State meet or exceed all of its SQ obligations in 2003 and 2002?

8 A. Yes. As was the case in 2004, Bay State met or exceeded all of its SQ obligations
9 in 2003 and in 2002.
10

11 Q. Has Bay State ever paid any penalties associated with the SQ program?

12 A. In 2001 Bay State failed to achieve a customer satisfaction target; the Department
13 eliminated this measure for subsequent years. In 2000, Bay State missed a
14 number of SQ benchmarks that resulted in payment of a substantial penalty.
15

16 Q. What were the causes of Bay State failing to achieve a number of benchmarks in
17 2000?

18 A. Yes. In 1999, Bay State was required to replace its Customer Information System
19 ("CIS"), due to Year 2000 ("Y2K") software incompatibility issues. The change-
20 out of a utility's CIS is a daunting task under ideal circumstances. Unfortunately,
21 Bay State was forced to make the CIS change at a time when many other
22 businesses were facing similar problems and information technology resources,
23 both within the Company and from outside consultants, were in short supply.

1 Although the conversion to the new CIS was ultimately successful, Bay State did
2 face a number of CIS-related data conversion challenges that adversely impacted
3 customer billing during 2000. At the same time, as discussed later in my
4 testimony, the Company's automated meter reading system began to experience
5 reliability problems, and the combination of CIS and meter reading challenges put
6 substantial additional pressure on the Company's call center. The net result was
7 that the Company failed to achieve a number of performance targets.

8
9 Q. Was the Company able to correct these problems?

10 A. Yes. The Company's SQ performance in recent years demonstrates the successes
11 that Bay State has had in overcoming these significant challenges. A number of
12 enhancements have been made to the CIS since its installation, and the system has
13 proved to be very reliable and capable of meeting the needs of the Company's
14 customers. Also, Bay State has all but completed the installation of an Itron
15 automated meter reading system, and a host of improvements have been made to
16 the call center to improve call-answering performance.

17
18 Q. Are there additional initiatives that you expect will continue to improve service to
19 customers?

20 A. Yes. In 2004, Bay State established a CheckFree program that will permit
21 customers to pay their Bay State bills electronically through Bay State's web site.
22 Also in 2004, Bay State placed improved technology in its call center to aid its

1 customer service representatives in staying current on information necessary to
2 assist customers in a prompt and accurate manner. Bay State also participated in
3 a NiSource-wide initiative to redesign customer bills into an easy to read and easy
4 to understand format. Bay State hopes to introduce the new bill design by the end
5 of 2005.

6 **VIII. HELPING CUSTOMERS COPE WITH THE HIGH COST OF GAS**
7

8 Q. Does Bay State view helping customers understand their bills as a service quality
9 issue?

10 A. Yes, it does. Particularly confusing and difficult for customers is the price
11 volatility in natural gas markets.
12

13 Q. How is the commodity cost of gas recovered from customers?

14 A. The cost of the gas commodity, that is, the gas itself, is passed through directly to
15 customers through the cost of gas adjustment on a dollar-for-dollar basis. Bay
16 State procures natural gas through competitive bidding and least-cost portfolio
17 management, but it does not earn any return on the gas commodity itself. Bay
18 State is allowed to recover from customers the cost from suppliers and no more.
19

20 Q. What part of Bay State's operations does this rate request impact?

21 A. Bay State's request for rate relief covers the portion of rates that recovers Bay
22 State's costs for local distribution service. Distribution service rates, including

1 the customer charge on customers bills, recovers the costs of Bay State's
2 investment in, and maintenance of, pipes, mains, meters and services that bring
3 natural gas to homes and businesses, as well as the billing, credit, collection,
4 customer service and all the other aspects of the distribution service Bay State
5 provides.

6
7 Q. What is Bay State doing to help its customers combat the high cost of gas?

8 A. Bay State is actively involved in assisting its customers in managing the high
9 commodity cost of gas. Bay State provides a number of customer-assisted
10 payment options, and heavily advertises the availability of these options.

11
12 Bay State also conducts advertising campaigns that target low-income customers,
13 providing information on the nearest fuel assistance agency and listing in easy-to-
14 read formats the income eligibility guidelines. Bay State has created posters that
15 highlight fuel assistance agencies and income guidelines and distributed them to
16 non-profit agencies, councils on aging, local elected officials and state legislators
17 in its service territory. Bay State also created a communications plan that helped
18 educate the print, radio and television media regarding record sendouts in early
19 2004, conservation measures, fuel assistance and natural gas prices.

1 Q. Does the Company offer demand-side management ("DSM") programs to help its
2 customers reduce their gas bills and control through conservation their
3 consumption of natural gas?

4 A. Yes. Bay State's energy efficiency programs are designed for residential, low
5 income, commercial and industrial customers, and multifamily dwellings. The
6 programs serve to help business and residential customers achieve energy savings,
7 mitigate energy price volatility and build a market for high efficiency products.

8

9 Q. What about efforts to fund assistance for eligible customers?

10 A. Bay State has participated in the Good Neighbor Energy Fund and committed to
11 helping fund the Good Neighbor Energy Fund media programs. Bay State has
12 sent mailings to mayors, city councils, legislators and councils on the aging in its
13 service territory providing information and contacts, regarding the Good Neighbor
14 Energy Fund, and has posted information regarding the Good Neighbor Energy
15 Fund on its internal employee intranet. Bay State has contributed to Good
16 Neighbor Energy Fund and sponsors campaign seeking employee donations to the
17 fund and pays for envelopes (seeking donations from customers and advertising
18 the program) in customer bills in the first quarter of each year.

19

20 Q. Does Bay State do its best to ensure that interested constituents understand the
21 issues around natural gas commodity pricing and service?

1 A. Yes. Bay State also has provided to state legislators pamphlets and posters on
2 fuel funds and energy conservation to be shared with constituents and put on
3 display in legislative district offices.

4
5 In 2003, Bay State provided new computers to fuel assistance agencies to enable
6 those agencies to connect to Bay State through the Bay State website so that they
7 could access consumption history and account information (with a customer
8 present) to process requests for fuel assistance funds. Bay State also printed and
9 supplied fuel assistance agencies and councils on aging with marketing materials
10 to advertise their services.

11
12 Q. What other initiatives has Bay State undertaken to promote customer awareness
13 of assistance programs?

14 A. Bay State educates its field employees, including meter readers and service
15 personnel, on gas costs and fuel assistance availability, and provides these
16 employees with information cards to respond, on-the-spot, to customer inquiries
17 and concerns. In addition, Bay State continually updates its contact center
18 personnel and customer service representatives with talking points regarding gas
19 cost issues, updated regulatory filings and additional resource information for its
20 customers.

1 **IX. STEEL INFRASTRUCTURE REPLACEMENT (“SIR”) PROGRAM**

2
3 Q. Does the Company consider distribution system service reliability and safety to be
4 as paramount to its public service obligation?

5 A. Absolutely. Bay State’s number one priority is making sure it delivers natural gas
6 to its customers through a safe and reliable distribution system.

7
8 Q. What is the steel infrastructure replacement (“SIR”) initiative that Bay State is
9 proposing in this proceeding?

10 A. As described in greater detail in the Cote Testimony, Exh. BSG/DGC-1, Bay
11 State is facing accelerating deterioration of its unprotected steel mains and
12 facilities. Bay State has determined that this situation requires it to accelerate the
13 replacement of the affected facilities. Therefore, Bay State has implemented a
14 steel infrastructure replacement (“SIR”) program that will invest approximately
15 \$20 million per year, in addition to what it has normally spent on its steel
16 infrastructure, to accelerate replacement of all steel mains that are not cathodically
17 protected, along with other related facilities, referred to throughout the
18 Company’s filing as Eligible Facilities, and proposes here a SIR Rate Base
19 Adjustment mechanism that will allow the Company to recover the costs of these
20 incremental investments in a timely manner.

1 Bay State's steel infrastructure facilities were installed over a relatively short
2 period primarily in the 1950's, and they are now rapidly reaching the end of their
3 useful life. The SIR reflects Bay State's determination that the rate of
4 deterioration of its steel mains and services is surpassing Bay State's ability to
5 continue to manage the deterioration, as demonstrated by the increasing number
6 of leaks being experienced at the same time that the amount of bare steel facilities
7 in Bay State's distribution system is declining. The Cote Testimony describes the
8 reasons for the deterioration of the steel facilities.

9
10 Q. Why does this problem require immediate action by the Company?

11 A. The distribution of natural gas to homes and businesses includes inherent risks
12 due to the physical characteristics of natural gas. The continued safety of Bay
13 State's customers and employees, and the public, as well as the continued safe
14 and reliable operation of its natural gas delivery system, are paramount objectives
15 for Bay State when making engineering planning decisions. The continued
16 deterioration of the steel components of its distribution system is now outstripping
17 Bay State's ability to cost-effectively address the rate of leakage. The risk of
18 injury and unsafe conditions continues to escalate.

19
20 Q. Has Bay State been responsible and prudent in its past maintenance and repair
21 procedures for its steel facilities?

1 A. Yes it has. Further, as Mr. Cote's testimony demonstrates, the leak trend is
2 increasing at a rate that will quite shortly exceed the ability of any reasonable
3 utility to manage. The only answer is to replace the steel. Mr. Cote has
4 determined that the most efficient manner to implement the SIR, and to create the
5 greatest savings while ensuring public safety, is to plan a 10-to-15 year
6 replacement program.

7
8
9 Q. What rate recovery method is appropriate to recover the costs associated with the
10 SIR program?

11 A. The magnitude of the SIR program is substantial both in cost and scope. It is Bay
12 State's view that filing repeated, traditional rate proceedings to recover the cost
13 associated with this level of infrastructure replacement is administratively
14 inefficient and will drive up the costs ultimately borne by ratepayers. Assuming
15 Bay State were required to file rate cases every two years to recover these
16 legitimately incurred expenses, ratepayers may bear in excess of \$5 million in rate
17 case litigation costs (assuming a total cost of \$1 million per case) and an
18 unnecessary administrative burden would be placed on the Department.
19 Moreover, it is possible that the Company may be required to file rate cases more
20 frequently than every two years. The Company's proposal results in
21 administrative efficiency, while allowing the Department the opportunity to

1 carefully review all aspects of the Company's performance associated with SIR
2 program.

3
4 The SIR revenue recovery method will have the following characteristics: (1) it
5 will allow Bay State to recover the cost of its incremental non-discretionary
6 investment, including depreciation and property taxes; (2) it will be updated
7 annually after the close of the construction season; and (3) it will allow the
8 Department, the Attorney General and other parties to review annually Bay
9 State's proposed SIR costs.

10
11 Q. Why, if the Department were to grant Bay State the base rate increase it requests
12 in this proceeding, would that amount be insufficient to provide Bay State with
13 the opportunity to earn its allowed return during the period of a 5 year PBR?

14 A. Based on the traditional ratemaking standards adhered to in Massachusetts, Bay
15 State's rates are established based on a historical test year. If a utility finds that it
16 must undertake a significant non-discretionary project, over and above historical
17 investment levels captured in its base rates, such as the accelerated replacement of
18 steel facilities, the utility usually will find itself being stripped of its ability to earn
19 its allowed return in very short order even if it has a PBR in place that adjusts for
20 inflation. Bay State currently estimates that its earnings will be eroded, on the
21 first day of its rate year, given the level of capital expenditures it will be making
22 for the SIR program during 2005. Bay State will be spending in excess of \$25

1 million per year in non-revenue producing, non-discretionary SIR plant additions,
2 in relation to its net plant of \$477 million as of the end of the test year. This
3 amount is extraordinary by almost any standard.
4

5 Q. Describe the level of earnings erosion from the SIR-related capital expenditures.

6 A. As stated in the Moul Testimony, the reason a significant short-fall in earnings
7 occurs with each year of the SIR program is because of the non-revenue
8 producing nature of the investment covered by the SIR Base Rate Adjustment.
9 This is true especially in the context of the PBR, because a PBR contains no
10 provision for servicing the capital investment required to meet the advancing SIR
11 program construction requirements. A PBR rate setting mechanism that does not
12 include a separate SIR Base Rate Adjustment will force Bay State to file rate
13 cases solely to avoid the earnings erosion associated with the SIR program.
14

15 Q. Please describe the design of Bay State's proposed SIR Base Rate Adjustment
16 mechanism.

17 A. What follows is a summary of the mechanism. Note that the Skirtich Testimony
18 (Exh. BSG/JES-1 at 67) provides the annual revenue requirement calculation for
19 the proposed SIR Base Rate Adjustment; the Ferro Testimony (Exh. BSG/JAF-2)
20 provides a description of the inclusion of SIR in the Annual Base Rate Step
21 Adjustment mechanism ("ABRAM"), its relationship to Bay State's proposed
22 PBR, and the bill impact; the Moul Testimony (Exh. BSG/PRM-1 at 10-13)

1 discusses the earnings erosion impact of the SIR; the Kaufmann Testimony (Exh.
2 BSG/LRK -1 at 17) summarizes the co-existence of the PBR and the SIR Base
3 Rate Adjustment mechanism.
4

5 The proposed SIR Base Rate Adjustment would apply to the incremental SIR
6 plant additions, the pre-tax weighted average cost of capital approved as part of
7 the Department's order in this case as well as applicable federal and state income
8 tax rates. Carrying costs associated with each construction period would be
9 recovered. The adjustment also provides for an offset for the calculation of
10 reduction in operations and maintenance expenses associated with the SIR
11 program.
12

13 Q. Would the SIR Base Rate Adjustment require an annual filing with the
14 Department throughout the term of the program?

15 A. Yes. Bay State would make an annual filing with the Department to include the
16 eligible expenses associated with the SIR incurred during the previous calendar
17 year. The annual filing will be submitted by June 1 of each year to allow
18 sufficient time for the Department and other interested parties to review the
19 proposed adjustment to its rates taking effect on November 1 of each year,
20 coincident with Bay State's cost of gas adjustment ("CGA") and ABRAM, which
21 will include the PBR annual adjustment. The SIR Base Rate Adjustment would

1 not be subject to future reconciliation following the Department's investigation
2 and final order of SIR program costs each year.
3

4 Q. What information would be provided to the Department in annual SIR filings?

5 A. Bay State would file its annual Base Rate Adjustment calculation, including a
6 summary of proposed SIR revenues and a summary of plant-in-service that was
7 added through the SIR. The filing would also include a summary of plant-in-
8 service retired or removed. Bay State would calculate the depreciation expense
9 and accumulated depreciation, carrying charges, and include the property tax
10 offsets and the allowed return. Allocation of the increase by rate class, along with
11 a bill impact analysis by rate class would be provided.
12

13 In addition, the filing would include a construction audit package along with
14 supporting schedules describing the past year SIR activity in detail and the SIR
15 construction forecast. This part of the filing is intended to provide all the
16 necessary materials for the Department to conduct a complete audit of the
17 program investment, and would include (1) a summary of annual program budget
18 by job type; (2) a summary of actual expenditures by job; (3) a summary of
19 corrosion leaks and total leaks per mile each year between 2000 – 2004 as well as
20 for each year subsequent to the SIR program implementation; (4) a summary of
21 steel footage replaced by type, along with a rolling estimate of the remaining
22 footage to be replaced; (5) a detailed description of the cost management

1 procedures used, including competitive bidding, on-site supervision, and cost
2 overrun authorization monitoring and control; (6) copies of project authorization
3 forms, including all necessary approvals; (7) Work Order Management System
4 backup by job; (8) copies of all invoices over \$1,000; and (9) a complete variance
5 analysis for total project costs.
6

7 Q. Has this SIR Base Rate Adjustment proposal or one like it ever been approved by
8 the Department?

9 A. The Department approved a step adjustment for plant additions in Bay State's
10 settled rate proceeding in D.P.U. 97-97. Prior to that, the Department rejected a
11 somewhat similar request in D.P.U. 92-111. However, in that case, the
12 Department determined that the program did not have a firm commitment by Bay
13 State to replace post-1860 vintage cast-iron pipe at a specific rate.
14

15 The New Hampshire Public Utilities Commission approved a step adjustment for
16 Bay State's affiliate, Northern, for bare steel and Itron meter replacements which
17 involved an audit process similar to what Bay State is proposing here. In
18 addition, the Maine Public Advocate recently agreed in a settlement to consider
19 the implementation of a step adjustment for cast iron main replacement as part of
20 Northern's next base rate proceeding in Maine.
21

1 Q. What commitment can Bay State provide that it will replace steel in its
2 distribution system?

3 A. In 2004, Bay State committed \$8 million in incremental replacement costs. In its
4 2005 capital budget, Bay State has dedicated \$20 million towards this project and
5 has already begun the replacement program. Bay State is committed to this
6 program for reasons of public safety and economics. Further, by establishing a
7 multi-year plan for replacement, Bay State can obtain from contractors highly
8 competitive bids for this type of long-term construction project. In addition, the
9 overall costs to customers will be lower if there exists an administratively
10 efficient means of moving the SIR investment into rates, as opposed to the
11 traditional rate case process (and related expense) on the Company, the
12 Department and intervenors.

13
14 Q. Is Bay State aware of examples that demonstrate the successful implementation of
15 an annual base rate adjustment for accelerated mains replacement?

16 A. As discussed, Bay State's affiliate, Northern, implemented in New Hampshire a
17 step adjustment that was designed in conjunction with the NHPUC's Engineering
18 Department to replace the bare steel mains in New Hampshire. Northern Utilities,
19 Inc., DR 91-081 (1992). The step adjustment to base rates started on
20 November 1, 1992 and continued annually until the program was completed in
21 1999. The program provided for the recovery of depreciation and return on non-
22 revenue producing investments related to bare steel, and the size of the step

1 adjustment was reduced by the amount of net revenues received from a new
2 customer added along the route.

3 **X. METSCAN AUTOMATED METER READING SYSTEM**
4

5 Q. What is Metscan?

6 A. Metscan is an automated meter reading technology that was installed and in
7 service to customers throughout the 1990s but now has been retired and replaced
8 by a technologically-superior wireless meter reading system. Bay State is seeking
9 approval to amortize its unrecovered prudent investment and related commitments
10 associated with the Metscan automated meter reading technology.

11
12 Q. What amounts for recovery of the Metscan investment are included in Bay State's
13 proposed rates in this proceeding?

14 A. Bay State is seeking to recover \$13.2 million associated with the undepreciated
15 plant investment and also the expected net present value of lease payments
16 associated with the Metscan automated meter reading system.

17
18 Q. Over what period is Bay State proposing to recover these costs?

19 A. Bay State is proposing to amortize and recover these costs over five years,
20 consistent with the Company's five-year PBR proposal.

1 Q. Please describe the Metscan meter reading system and Bay State's decision to
2 deploy it.

3 A. During the late 1980s, Bay State investigated alternatives to the manual reading of
4 its meters in order to reduce the cost of obtaining meter readings for billing
5 purposes and thereby produce savings for the Company and its customers. The
6 Company analyzed the market that existed at that time for technological
7 alternatives that could supercede the practice of manual meter reading and
8 determined that the Metscan automated meter reading technology was the most
9 viable and cost-effective. The Metscan technology involved installing a device on
10 the gas meter and a wired connection between the customer's meter and the
11 customer's telephone line, which would transmit meter readings over the
12 telephone system to the Company's billing and customer information center.

13
14 Bay State conducted a comprehensive field test of the Metscan technology
15 beginning in 1987 with the installation of 450 devices. As a result of the field
16 tests, Bay State determined the technology to be reliable and the most cost
17 effective alternative to manual meter reading. Therefore, in 1990, Bay State made
18 the decision to undertake a full deployment of the Metscan meter reading
19 technology and proceeded to install over 253,000 Metscan devices, beginning in
20 1991 and continuing through 1998. In the Company's last base rate proceeding,
21 the Department acknowledged the commencement of the Metscan deployment.

22 D.P.U. 92-111, p. 142.

1

2 Q. Did the Metscan system operate as anticipated?

3 A. Overall, the Metscan system operated as expected. Bay State relied on the
4 Metscan system for reading hundreds of thousands of its meters for customer
5 billing purposes throughout the 1990's.

6

7 Q. You stated that Bay State retired the Bay State the Metscan technology with Itron
8 meter technology. What caused Bay State to replace the Metscan system?

9 A. Although a number of factors contributed to the decision to replace the Metscan
10 system, the critical factors were device longevity, continued availability of vendor
11 support, particularly for those devices for the smaller non-instrumented meters,
12 and the continued improvements that were made to the wireless meter reading
13 technology during the 1990's.

14

15 When installed, it was expected that the Metscan devices had an expected life of
16 about 12 years. This assumption was premised upon Bay State's direct
17 experience with the life of the battery that was contained in the device. It was
18 expected that a battery replacement at the end of the useful life of the first battery
19 would further extend the useful life of the devices. However, by 1999 it was
20 apparent that wireless meter reading technology, particularly Itron's encoder,
21 receiver, transmitter ("ERT") technology, was more cost-effective; it was an
22 efficient and increasingly prevalent meter reading technology, proving itself to be

1 a new wireless technology that was superior to the Metscan technology.

2 Moreover, Itron had acquired Metscan in the mid-1990's, and Itron's commitment
3 to provide technological and operational support to the Metscan technology was
4 diminishing.

5
6 In addition, by 2000 Bay State determined that, for Metscan devices that were
7 installed on outside meters, the continual exposure to the elements reduced the
8 reliability of the devices. This was particularly true for devices that had been in
9 the field for more than seven years. The increasing numbers of equipment
10 failures of the devices resulted in higher operating costs for the Company. As a
11 result of these factors, Bay State made the decision in 2000 to replace the Metscan
12 system earlier than it had originally planned, and to do so with a wireless, radio-
13 based Itron meter reading system.

14
15 Q. Was the decision in 2000 to replace the Metscan system with Itron technology a
16 sound business decision?

17 A. Absolutely. In fact, even more so with the benefit of hindsight. In 2004, Itron
18 notified the Company that it planned to discontinue production of Metscan
19 devices and would no longer support the software that is used to collect meter
20 readings.

1 Q. What is the status of the Itron installation?

2 A. The broad scale installation of Itron meters is nearing completion, with only a few
3 difficult-to-access meters remaining.

4

5 Q. Are some Metscan devices still in use?

6 A. Yes, a limited number of Metscan devices continue to operate for a small number
7 of the Company's customers, some of which are larger customers taking daily
8 metered transportation service and/or service under the Company's demand-based
9 Extra High Annual C&I rate schedule. These devices, which are necessary to
10 administer rates requiring daily meter readings, and are utilized primarily for the
11 large instrumented meters, have remained in-service.

12

13 Q. Do you believe that it is reasonable for the Department to permit recovery of the
14 remaining investment and other costs related to the Company's investment in the
15 Metscan system?

16 A. Yes. The original decision to install the Metscan system was made after careful
17 evaluation, and given what was known at that time, the decision was prudent.
18 While in operation, for many years, the Metscan devices provided efficiencies and
19 cost savings, just as they were intended to do. There was no way for Bay State to
20 know, at the time the decision was made to deploy the devices, that the Metscan
21 devices would not be durable and that a wireless alternative would come to
22 dominate the market by the year 2000. It was also a prudent decision in 2000 for

1 Bay State to begin the retirement of the Metscan system in order to provide the
2 benefits of the Itron system to its customers.
3

4 Q: How does the Company propose to recover the costs associated with the
5 remaining investment and commitments assumed with regard to Metscan?

6 A: Bay State is seeking to recover at total of \$13,216,748 associated with the retired
7 Metscan assets for which the Company either has a lease obligation or has
8 remaining net book value as of the end of the test year. Of this amount,
9 \$10,095,382 is associated with the termination and early payment of an operating
10 lease that covered most of the Metscan devices. The remaining \$3,121,366 is
11 associated with the unrecovered investment that remained on the Company's
12 books at the end of the test year.
13

14 Q. Do you believe that Bay State's removal of the remaining Metscan costs from rate
15 base and test year operating expenses and amortization of the remaining
16 investment and commitment over a five-year period is consistent with Department
17 precedent?

18 A. Yes. The Metscan assets have been retired; therefore, they should be removed
19 from rate base. Further since the decision to deploy them was prudent and
20 benefited customers, the undepreciated plant balance should be amortized over a
21 reasonable period. Since the operating lease that covers a portion of the Metscan
22 devices represents the balance of the Company's investment that has been retired

1 prematurely and, therefore, will be paid off in the very near future, it is
2 appropriate to treat this payment as an extraordinary non-recurring expense and
3 amortize it over a reasonable period.

4
5 Q. Does the Company's proposal minimize the impact on customers, as compared to
6 including in the test year the operating lease expense for the Metscan devices?

7 A. Yes. The rate impact of the five-year amortization of the value of the lease and
8 effects of eliminating the rate base item is, in total, less than the annual Metscan
9 lease payments incurred in the test year.

10 **XI. ENERGY PRODUCTS AND SERVICES ("EP&S")**
11

12 Q. Please describe Bay State's integrated service business.

13 A. Bay State is one of the few utilities in the Commonwealth to have a service
14 business integrated into the gas utility business. This service business is referred
15 to as Energy Products and Services ("EPS"). EPS is not an affiliate, but can be
16 confused with one. As a result, we frequently hear concerns that the service
17 business should be subject to the rules concerning competitive energy affiliates
18 (220 C.M.R. 12.00 et seq.). However, the Department has determined that Bay
19 State's integrated service business is not a competitive affiliate since the
20 integrated service lacks any separation, either legal or functional, from the Bay
21 State's obligations to its customers and it is not a "unit or division" within the
22 meaning of 220 C.M.R. sec. 12.02.

1

2 Q. What is the Department's policy on service businesses that are part of, or
3 integrated with, a utility's distribution operations?

4 A. The Department requires that above-the-line activities, such as a service business,
5 be profitable on an incremental basis.

6

7 Q. Please describe Bay State's Energy Products and Services Business.

8 A. Bay State offers the following services to customers on a fully-integrated basis
9 with its utility operations: heating equipment repairs; water heater repairs; water
10 heater and conversion burner rentals; heating equipment inspections and heating
11 equipment and water heater rentals, sales and installations.

12

13 Q. Do Bay State's EP&S services constitute part of the monopoly service that Bay
14 State provides as a natural gas distribution utility?

15 A. No, they do not. Although gas distribution is a monopoly function (because it is
16 economically inefficient given among other things, the high cost of pipeline
17 construction to grant a franchise to more than one provider), Bay State competes
18 with oil and propane dealers and regulated electric distribution companies in the
19 highly competitive space heating and water heating markets. Bay State's market
20 share, for example, of heating system installation jobs in its distribution system is
21 currently only 4% of the total market for this activity.

22

1 Q. Why does Bay State offer EP&S services?

2 A. Bay State's provision of these services meets several key business objectives that
3 benefit its customers. First, the integrated service business activities allow Bay
4 State to maximize the use of existing resources, including the union employees
5 performing these services. Bay State does, and must, keep in place the necessary
6 personnel and infrastructure to provide safe and reliable service. Similarly, Bay
7 State must maintain the appropriate levels of available resources to respond to
8 emergency situations. Personnel performing service business activities undergo
9 cross-training in all aspects of safety and safety code-related functions. As a
10 result, Bay State's service technicians are capable of conducting visual safety
11 checks and detecting gas odors or other potential safety problems during the
12 normal course of business. By maintaining service business technicians within
13 the distribution company, these resources remain available to provide reliability
14 and safety-related services for the benefit of Bay State's ratepayers.

15
16 Q. Describe other ways the service business benefits ratepayers.

17 A. Bay State uses these services as part of its overall efforts to attract new customers
18 and to increase load from its existing customers. Increased load growth allows
19 Bay State, in turn, to serve its existing customer base more efficiently and cost-
20 effectively. In fact, Bay State credits the additional revenues from its service
21 business with helping it avoid rate cases and meet its rate freeze obligation under
22 the Department's merger order in D.T.E. 98-31. The EP&S provides positive

1 financial benefits to all customers, since base rates would be higher without the
2 contribution made by EP&S.

3
4 Q. Are there other benefits?

5 A. Yes. Providing a full service business is essential to meeting the needs of Bay
6 State's customers. Bay State's customers want and expect the ability to obtain
7 rental and repair services from their full-service heating dealer, be that oil or
8 natural gas. Therefore, providing this service is necessary to maintain high levels
9 of customer satisfaction and to maximize the Company's opportunities to secure
10 additional cost-effective added load.

11
12 Q. Does Bay State provide this service and generate its sales and rental leads entirely
13 from within the Company?

14 A. No, it does not. Bay State also looks to independent contractors as trade allies
15 who can assist Bay State in attracting new load and to increase load from existing
16 customers. Bay State solicits participation of qualified contractors in its
17 contractor referral program and provides incentives to participants to help meet
18 Bay State growth objectives. Bay State also informs customers on its telephone
19 service lines that these services can be provided by independent contractors as
20 well as Bay State. Bay State's water heater installations are provided by
21 independent contractors.

22

1 Q. What specific services are provided by EP&S?

2 A. The Guardian Care Service Business provides service to customer-owned
3 equipment. This business operates fully within the gas utility and is marketed as
4 *Guardian Care*. Expenses are fully allocated to this business, and all profits from
5 the business benefit ratepayers for ratemaking purposes.

6
7 The Water Heater Rental Business provides customers the ability to rent water
8 heaters from Bay State at a fixed monthly rate and receive continuing service for
9 the water heater. This business operates fully within the gas utility. Expenses are
10 fully allocated to this business, and all profits from the business benefit ratepayers
11 for ratemaking purposes.

12
13 The Boiler and Furnace Sales and Installation Business provides customers a one-
14 stop location for Boiler and Furnace purchasing. This business is operated below
15 the line: the revenues and expenses are not included in rates (and where shared
16 are fully allocated).

17
18 Annual Inspections provide customers with a safety and efficiency check of their
19 heating systems. This business operates fully within the utility and is accounted
20 for above the line. Expenses are fully allocated to the business segment, and all
21 profits are recognized for ratemaking.

22

1 Fee for Service provides customers with heating equipment and water heater
2 repairs on a fee for service basis, as long as resources are available to provide the
3 service. Expenses are fully allocated to the business segment, and all profits are
4 recognized for ratemaking.

5
6 Q. Has the Department prescribed how Bay State accounts for the cost of providing
7 these services?

8 A. Yes. In order to ensure that ratepayers do not subsidize separate business
9 activities and that ratepayers share in any benefits attributable to these activities,
10 the Department has sought in the past to ensure that the appropriate incremental
11 costs and revenues were allocated to these businesses. In Bay State Gas
12 Company, D.P.U. 92-111 (1992), the Department determined that the appropriate
13 accounting treatment for above-the-line activity was an incremental approach to
14 such activities.

15
16 Q. Does Bay State follow that requirement?

17 A. Bay State exceeds it. In 2000, the Department accepted Bay State's request to
18 account for service business costs on a fully allocated basis, rather than following
19 the Department's incremental cost approach. As such, this approach to
20 accounting allocates more costs to these activities and provides greater assurance
21 that these business activities generate net benefits for ratepayers.

1 Q. How does Bay State track costs on a fully allocated basis and how does that
2 assure that Bay State's regulated services are not subsidizing the competitive
3 service activities?

4 A. Bay State tracks costs by (1) direct cost; (2) direct fringes and (3) overhead.
5

6 Q. Please explain direct cost.

7 A. Direct costs include direct labor, parts and materials, rental water heater lease
8 expense and rental water heater and conversion burner depreciation expense.
9 These costs are charged directly to the service activities as incurred.
10

11 Q. Please explain direct fringes.

12 A. Direct fringes include company benefits, payroll taxes and liability insurance
13 related to direct labor costs. These costs are allocated by multiplying direct labor
14 by the percentage of total company fringes to total company payroll (the "fringe
15 benefit rate").
16

17 Q. Please explain overhead.

18 A. Overheads include the costs which are directly charged or allocated between the
19 total service activities and other utility activities. The costs for total service
20 activities are subsequently allocated among the individual service activities on the
21 basis of direct labor.
22

1 Q. What does this mean in terms of test year expenses and revenues from the service
2 businesses?

3 A. Bay State's service business contributed \$5.7 million of profit in the test year to
4 Bay State that directly offsets expenses that would be otherwise borne by
5 ratepayers. In total, the service business grossed \$17.3 million and incurred fully
6 allocated costs of \$11.6 million. Of this amount, \$1.5 million were incurred
7 below the line and \$10.1 million were incurred above the line.
8

9 **XII. CONCLUSION**
10

11 Q. Is there anything else you wish to add?

12 A. Yes. Granting Bay State's moderate request for base rate relief, permitting Bay
13 State to implement its SIR program with an efficient method of recovering its on-
14 going SIR investment and recognizing Bay State's pension and PBOP obligations
15 in a reconciling mechanism will allow Bay State to ensure and enhance customer
16 service, safety and reliability.
17

18 Q. With that, do you conclude your testimony?

19 A. Yes, reserving my ability to respond as necessary to issues raised in discovery or
20 on rebuttal, should the schedule in the proceeding permit, I do.